PATENT
Customer Number 22,852
Attorney Docket No. 7040.0081.00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Alberto CARRA et al.	)	
	)	
Serial No.: Not yet assigned	)	Group Art Unit: Not yet assigned
	)	
Filed: April 27, 2001	)	Examiner: Not yet assigned
	)	
For: TYRE AND TREAD THEREOF	)	

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

PRELIMINARY AMENDMENT

Prior to the examination of the above-captioned application, please amend this application as follows:

IN THE SPECIFICATION:

Please amend the specification, as follows:

Add two section headings, a section subheading, and a paragraph immediately after the title TYRE AND TREAD THEREOF, as follows:

A1 --CROSS-REFERENCES TO RELATED APPLICATIONS

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This application is a continuation of International Patent Application No. PCT/EP99/08030, filed October 22, 1999, in the European Patent Office; additionally, Applicants claim the right of priority under 35 U.S.C. § 119(a) - (d) based on patent application No. 98830655.1, filed October 29, 1998, in the European Patent Office; further, Applicants claim the benefit under 35 U.S.C. § 119(e) based on prior-filed, copending provisional application No. 60/111,115, filed December 4, 1998, in the U.S. Patent and Trademark Office; the contents of all of which are relied upon and incorporated herein by reference.

BACKGROUND OF THE INVENTION

Field of the Invention--

Page 1, line 17, add section subheading --Description of the Related Art-- prior to the start of the paragraph beginning "The tyres for the driving axles . . . ."

Page 4, line 5, add section heading --SUMMARY OF THE INVENTION-- prior to the start of the paragraph beginning "Applicants' goal is to realize . . . ."

Page 7, line 23, add section heading --BRIEF DESCRIPTION OF THE DRAWINGS-- prior to the start of the paragraph beginning "Further characteristic features . . . ."

Page 8, line 24, add section heading --DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS-- prior to the start of the paragraph beginning "In the Figures . . . ."

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Add a new Page 25 after the claims, adding the following ABSTRACT OF THE DISCLOSURE. A new, separate Page 25 is enclosed.

A2

--ABSTRACT OF THE DISCLOSURE

A tyre for vehicles includes a carcass structure, a belt structure, and a tread. The tread includes a row of central blocks and a row of intermediate blocks arranged on each side of an equatorial plane of the tyre between a central longitudinal groove formed astride the equatorial plane and a pair of longitudinal lateral grooves. The blocks of the central rows are separated from the blocks of the intermediate rows by circumferential sipes and are circumferentially staggered by a first predetermined quantity relative to the blocks of the intermediate rows. Also, the blocks of the central rows arranged on a first side of the equatorial plane of the tyre are circumferentially staggered by a second predetermined quantity relative to the blocks of the central rows on a second side of the equatorial plane of the tyre.--

IN THE CLAIMS:

Please amend claims 1-22, as follows:

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1. (once amended) A tyre for vehicles, comprising:

a carcass structure including a central peripheral portion and two sidewalls terminating in a pair of beads for fixing a wheel to a rim;

a belt structure coaxially associated with the carcass structure; and

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a tread with a predetermined thickness between a radially external surface of the tread and a radially internal surface of the tread in contact with the belt structure, the tread extending coaxially around the belt structure and comprising a row of central blocks and a row of intermediate blocks arranged on each side of an equatorial plane of the tyre between a central longitudinal groove formed astride the equatorial plane and a pair of longitudinal lateral grooves, the blocks of the central and intermediate rows being circumferentially spaced respectively by a plurality of first and second transverse grooves extending in a direction substantially perpendicular to a predetermined direction of forward travel of the tyre, each block being formed by a pair of transverse sides, respectively a front side and a rear side, relative to the direction of forward travel, and by a pair of longitudinal sides, the blocks of the central rows being separated from the blocks of the intermediate rows by a pair of circumferential sipes, wherein:

the blocks of the intermediate rows are circumferentially staggered by a first predetermined quantity relative to the blocks of the central rows;

the blocks of the central rows arranged on a first side of the equatorial plane of the tyre are circumferentially staggered by a second predetermined quantity relative to the blocks of the central rows on a second side of the equatorial plane of the tyre;

the first and second transverse grooves have centre lines converging in the direction of forward travel with ends on planes parallel to the equatorial plane of the tyre;

the first and second transverse grooves have centre lines inclined in opposite directions to one another at a first angle with respect to a plane perpendicular to the equatorial plane of the tyre; and

a depth of the first and second transverse grooves is equal to at least 95% of the thickness of the tread.

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2. (once amended) The tyre of claim 1, wherein a width of the transverse grooves is between 8 mm and 11 mm.

3. (once amended) The tyre of claim 1, wherein a width of the longitudinal grooves is between 10 mm and 14 mm.

4. (once amended) The tyre of claim 1, wherein the depth of the longitudinal lateral grooves is equal to at least 95% of the thickness of the tread.

5. (once amended) The tyre of claim 1, wherein the tyre comprises, in a position axially outside the intermediate rows, a row of shoulder blocks and elastic means for connecting together circumferentially adjacent shoulder blocks.

6. (once amended) The tyre of claim 5, wherein the elastic connection means consists of a relief in a transverse groove between successive shoulder blocks, the relief extending up to a predetermined height.

7. (once amended) The tyre of claim 5, wherein the shoulder blocks are circumferentially staggered relative to the blocks of the intermediate rows.

8. (once amended) The tyre of claim 5, wherein longitudinal outermost sides of the shoulder blocks are provided with facets.

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9. (once amended) The tyre of claim 1, wherein the transverse grooves form, together with a plane perpendicular to the equatorial plane of the tyre, a first angle between 10° and 15°.

10. (once amended) The tyre of claim 1, wherein the first quantity of circumferential staggering of the blocks is comprised between 48% and 58% of a length of a block.

11. (once amended) The tyre of claim 1, wherein the second quantity of circumferential staggering of the blocks of the central rows is comprised between 47% and 57% of a length of a block.

12. (once amended) The tyre of claim 1, wherein the second quantity of circumferential staggering is substantially equal to the first quantity of circumferential staggering.

13. (once amended) The tyre of claim 1, wherein the circumferential sipes have a maximum width of 3 mm.

14. (once amended) The tyre of claim 12, wherein a depth of the circumferential sipes is between 19 mm and 22 mm.

15. (once amended) The tyre of claim 1, wherein the front and rear sides of the blocks of the central row are formed by two straight portions inclined at a first angle with respect to a

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plane perpendicular to the circumferential sipes and by a third intermediate spacing portion connecting together the straight portions.

16. (once amended) The tyre of claim 15, wherein the third connecting portion forms a second angle with a plane perpendicular to the equatorial plane of the tyre, and wherein the second angle is between 30° and 40°.

17. (once amended) The tyre of claim 1, wherein the tyre comprises means for mutual engagement of the blocks of the intermediate and central rows.

18. (once amended) The tyre of claim 17, wherein the mutual engagement means consists of longitudinal sipes separating the central and intermediate rows having a zigzag pattern.

19. (once amended) The tyre of claim 1, wherein the central longitudinal groove has a width between 8 mm and 15 mm.

20. (once amended) The tyre of claim 1, wherein a depth of the central longitudinal groove is between 19 mm and 22 mm.

21. (once amended) The tyre of claim 1, wherein the central longitudinal groove is provided with a rib radially extending from a bottom thereof.

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22. (once amended) The tyre of claim 21, wherein the rib is formed by a plurality of reliefs alternating with recesses.

REMARKS

Applicants submit this Preliminary Amendment together with a continuation application under 37 C.F.R. § 1.53(b). Claims 1-22 are pending in this application.

In this Amendment, Applicants add section headings, section subheadings, and an Abstract of the Disclosure to conform to U.S. practice. Additionally, Applicants amend claims 1-22, which include the same subject matter as the original claims, to improve clarity. The originally-filed specification, claims, abstract, and drawings fully support the amendments to the specification and claims. No new matter was introduced.

If there is any fee due in connection with the filing of this Preliminary Amendment, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: April 27, 2001

By: _____

Lawrence F. Galvin
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Application Number: Not yet assigned
Filing Date: April 27, 2001
Attorney Docket Number: 7040.0081.00

APPENDIX TO PRELIMINARY AMENDMENT DATED APRIL 27, 2001

Amendments to the Claims

Please amend claims 1-22, as follows:

1. (once amended) [Tyre] A tyre for vehicles, comprising:

[-] a carcass structure [(2)] including a central peripheral portion [(3)] and two [side-walls (4, 5)] sidewalls terminating in a pair of beads [(9, 10)] for fixing a wheel to a rim [(11)];

[-] a belt structure [(12)] coaxially associated with the carcass structure [(2)]; and

[-] a tread [(14)] with a predetermined thickness between [its] a radially external surface of the tread and [its] a radially internal surface of the tread in contact with [said] the belt structure, [said] the tread extending coaxially around the belt structure [(12)] and comprising a row of central blocks [(16)] and a row of intermediate blocks [(17), both the rows being] arranged on each side of [the] an equatorial plane [(Y-Y)] of the tyre between a central longitudinal groove [(18)] formed astride [said] the equatorial plane [(Y-Y)] and a pair of longitudinal lateral grooves [(19, 20), said] , the blocks of the central and intermediate rows being circumferentially spaced respectively by a plurality of first and second transverse grooves [(27,28)] extending in a direction substantially perpendicular to a predetermined direction of forward travel of the tyre [(D)], each block being formed by a pair of [transversal] transverse sides, respectively a front side and a rear side, relative to [said] the direction of forward travel [D], and by a pair of longitudinal sides, the blocks of the central rows being separated from the

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blocks of the intermediate rows by a pair of circumferential sipes [(25), characterized in that] , wherein:

[a)] the blocks of the intermediate rows are circumferentially staggered by a first predetermined quantity [Q] relative to the blocks of the central rows;

[b)] the blocks of the central rows arranged on [either] a first side of the equatorial plane of the tyre are [each other] circumferentially staggered by a second predetermined quantity [Q'] relative to the blocks of the central rows on a second side of the equatorial plane of the tyre;

[c)] the first and [the] second transverse grooves have centre lines [(m_1, m_2)] converging in the direction of forward travel [D] with ends on planes parallel to the equatorial plane of the tyre;

[d)] the first and [the] second transverse grooves have centre lines inclined [at an angle α] in opposite directions to one another at a first angle with respect to [said planes parallel to] a plane perpendicular to the equatorial plane of the tyre; and

[e) the] a depth of the first and second transverse grooves is equal to at least 95% of the thickness of [said] the tread.

2. (once amended) [Tyre according to Claim 1, characterized in that the] The tyre of claim 1, wherein a width of the transverse grooves is [comprised] between 8 mm and 11 mm.

3. (once amended) [Tyre according to Claim 1, characterized in that the] The tyre of claim 1, wherein a width of the longitudinal grooves is [comprised] between 10 mm and 14 mm.

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4. (once amended) [Tyre according to Claim 1, characterized in that] The tyre of claim 1, wherein the depth of the longitudinal lateral grooves is equal to at least 95% of the thickness of [said] the tread.

5. (once amended) [Tyre according to Claim 1, characterized in that it] The tyre of claim 1, wherein the tyre comprises, in a position axially outside the intermediate rows, a row of shoulder blocks and elastic means for connecting together circumferentially adjacent shoulder blocks.

6. (once amended) [Tyre according to Claim 5, characterized in that said] The tyre of claim 5, wherein the elastic connection means consists [in the presence] of a relief in [the] a transverse groove between successive shoulder blocks, [said] the relief extending up to a predetermined height.

7. (once amended) [Tyre according to Claim 5, characterized in that] The tyre of claim 5, wherein the shoulder blocks are circumferentially staggered relative to the blocks of the intermediate rows.

8. (once amended) [Tyre according to Claim 5, characterized in that] The tyre of claim 5, wherein [the] longitudinal outermost sides of the shoulder blocks are provided with facets.

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9. (once amended) [Tyre according to Claim 1, characterized in that] The tyre of claim 1, wherein the transverse grooves form, together with [the longitudinal sipes] a plane perpendicular to the equatorial plane of the tyre, a[n] first angle [α of] between 10° and 15°.

10. (once amended) [Tyre according to Claim 1, characterized in that said] The tyre of claim 1, wherein the first quantity [Q] of circumferential staggering of the blocks is comprised between 48% and 58% of [the] a length of a block.

11. (once amended) [Tyre according to Claim 1, characterized in that said] The tyre of claim 1, wherein the second quantity [Q'] of circumferential staggering of the blocks of the central rows is comprised between 47% and 57% of [the] a length of a block.

12. (once amended) [Tyre according to Claim 1, characterized in that said] The tyre of claim 1, wherein the second quantity [Q'] of circumferential staggering [of the blocks of the central rows] is substantially equal to the first quantity [Q] of circumferential staggering [of the blocks of the intermediate and central rows].

13. (once amended) [Tyre according to Claim 1, characterized in that] The tyre of claim 1, wherein the [longitudinal] circumferential sipes have a maximum width of 3 mm.

14. (once amended) [Tyre according to Claim 12, characterized in that the] The tyre of claim 12, wherein a depth of the [longitudinal] circumferential sipes is [comprised] between 19 mm and 22 mm.

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15. (once amended) [Tyre according to Claim 1, characterized in that] The tyre of claim 1, wherein the front and rear sides of the blocks of the central row are formed by two straight portions inclined at [said] a first angle [α] with respect to a plane perpendicular to the [longitudinal] circumferential sipes and by a third intermediate spacing portion connecting together [said] the straight portions.

16. (once amended) [Tyre according to Claim 1, characterized in that said] The tyre of claim 15, wherein the third connecting portion forms a[n] second angle [β] with a plane perpendicular to the equatorial plane of the tyre, [said] and wherein the second angle [being comprised] is between 30° and 40°.

17. (once amended) [Tyre according to Claim 1, characterized in that it] The tyre of claim 1, wherein the tyre comprises means for mutual engagement of the blocks of the intermediate and central rows.

18. (once amended) [Tyre according to Claim 16, characterized in that said] The tyre of claim 17, wherein the mutual engagement means consists [in the fact that the] of longitudinal sipes separating [said] the central and intermediate rows [have] having a zigzag pattern.

19. (once amended) [Tyre according to Claim 1, characterized in that] The tyre of claim 1, wherein the central longitudinal groove has a width [of] between 8 mm and 15 mm.

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20. (once amended) [Tyre according to Claim 1, characterized in that the] The tyre of claim 1, wherein a depth of the central longitudinal groove is between 19 mm and 22 mm.

21. (once amended) [Tyre according to Claim 1, characterized in that] The tyre of claim 1, wherein the central longitudinal groove is provided with a rib radially extending from [the] a bottom thereof.

22. (once amended) [Tyre according to Claim 21, characterized in that said] The tyre of claim 21, wherein the rib is formed by a plurality of reliefs alternating with recesses.

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